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BLUE LINE TRANSPORTATION LIMITED

*Taxi Fleet Achieves Fuel-Cost
Savings with Propane*

In the early 1980s, Blue Line Transportation Limited began converting its taxis from gasoline to propane in an effort to reduce fuel and maintenance costs. The conversion program has been a tremendous success, enabling the company to more than triple the size of its fleet in 12 years.



About the company

Blue Line Transportation Limited is the largest taxi company in Hamilton, Ontario, which has a population of more than 300 000. The company has been in business independently since 1984, before which it was a partner with another taxi firm.

The nature of the taxi business is such that fuel costs, vehicle maintenance and vehicle replacement are the major operating expenses. In an effort to lower these expenses, Blue Line began switching its vehicles from gasoline to propane in the early 1980s. Propane offers significant advantages over gasoline, including fewer emissions and lower fuel costs. The savings achieved from the conversion program have helped Blue Line expand its fleet, which is now twice the size of its nearest competitor in the Hamilton market.

service

opportunity

The Blue Line fleet consists of 180 sedans and five vans. About 75 per cent of the vehicles are independently owned. Most of the passenger cars are Chevrolet Caprices equipped with eight-cylinder engines, many of which are former police vehicles.

All of the sedans and vans that are owned by Blue Line itself are mono-fuel vehicles — in other words, they operate on propane only. In order to maximize trunk space and minimize the vehicle weight, Blue Line opted to remove the gasoline tanks, which eliminated the dual-fuel capability. Some of the independently owned vehicles still run on gasoline only, in part because some individual owners find it difficult to allocate the necessary funds to pay for the conversion.

Refuelling and driver acceptance

The installation of an on-site refuelling system has also reduced costs, as well as facilitated refuelling for the drivers. "By having our own bulk tank storage, I can save \$0.05 to \$0.10 per litre of propane compared to other companies," stated Blue Line owner Tony Rizzuto.

Drivers travel between 200 and 250 kilometres before refuelling, which is usually required twice per 12-hour shift. Although refuelling occurs primarily at the Blue Line office, propane is available throughout the Hamilton area, should a driver run low on fuel.

Cost-effective conversions and quick payback

Because of the large number of vehicles involved, the Blue Line conversions were undertaken on a production line basis. The availability of a few spare vehicles enabled Blue Line to routinely withdraw taxis from service to allow them to be converted to propane, and the

conversion garage scheduled the work to proceed quickly and smoothly. The overall result was a prompt and efficient conversion program; it was frequently possible to convert two cars per day (although the process usually takes about one day).

In the early 1980s, government incentives helped defray more than 80 per cent of the cost of converting

vehicles from gasoline to propane. Blue Line was able to achieve additional savings by negotiating a volume discount with the vehicle converter. As a result, the cost to Blue Line of a typical conversion ranged between \$1,200 and \$2,000.

This investment was quickly repaid through fuel-cost savings. The price of propane in the Hamilton area ranges between \$0.25 and \$0.33 per litre, while gasoline varies from \$0.54 to \$0.69 per litre.

Although propane provides only about 80 per cent of the energy contained in the same amount of gasoline, the price differential still provides for significant savings. "Propane was chosen because of the high price of gasoline," says Mr. Rizzuto. "Drivers can save anywhere from \$10 to \$15 per day on two shifts. Payback on vehicles converted to propane takes less than half a year, depending on the use of the vehicle."

According to Blue Line Vice-President and General Manager Luke Haze, drivers require very little training to make the switch to propane vehicles, aside from being informed of the need to refuel after about 200 kilometres of driving. "Some drivers were not even aware initially that they were driving propane cars," he reports. "The drivers are very conscious of fuel and maintenance costs, and they have been very supportive of the switch to propane."

Operation and maintenance

From a maintenance perspective, all of Blue Line's mechanics are now licensed to do conversions, which enables them to switch the propane equipment from one vehicle to another, if necessary. Due to the growing availability of used propane vehicles, the company has not had to do a complete conversion in the past five years.

According to Mr. Rizzuto, the switch to propane has had a positive impact on engine maintenance costs. "Although older cars with carburetors had some problems with hesitancy using propane, the modern fuel injector has eliminated that problem. Propane-powered vehicles are cleaner burning, and you can get more life out of the spark plugs."

Mr. Rizzuto acknowledges that propane cars are slightly less powerful than similar gasoline vehicles but says the difference is only five to ten per cent. He adds that Blue Line drivers are happy to accept a small loss of power in return for the fuel-cost savings and other advantages.

payback

The company reports that cold-weather starting has not been a problem. "Years ago, there were some problems with cold starting but that had more to do with the vehicle itself than its use of propane," says Mr. Rizzuto. "The primer button (which pumps a small amount of propane directly into the intake manifold to facilitate starting under extreme conditions) in newer propane cars has eliminated cold starting problems."

In addition to reducing operating and maintenance costs, the conversion to propane has extended the average life of vehicles in the Blue Line fleet (although this is also dependent on the previous usage of the car). The average life span of the vehicles as taxis is 2.0 to 2.5 years. Some of the propane vehicles are driven more than 500 000 kilometres before disposal.

The bottom line

"Propane has lowered engine maintenance costs and saved more than 30 per cent in operating costs over gasoline use," reports Mr. Haze. "There have been no problems except for the occasional odour around the cars just after refuelling."

"I would recommend propane to all taxi fleets," adds Mr. Rizzuto. "Money-wise, it's given us an advantage over our competitors. Propane has been my life-saver."



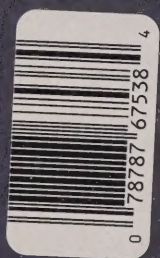
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